

ECOPOIESIS AND THE GOLDBLOX ARCHIVE

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Introducing *Ecopoiesis* and the *Goldilox Archive*:

For my 2019 Masters of Fine Art thesis project *Ecopoiesis and the Goldilox Archive* at the University of Hawai'i at Mānoa, I have mined many gigabytes of image data from the National Aeronautics and Space Administration (NASA) and Jet Propulsion Laboratory's (JPL) digital image archives. Over the course of this project I have amassed my own archive of images and corresponding data. Based on this data, I have created large format archival digital prints. At its core, my thesis project is a collection of research data remixed into my own science fiction image narratives. This project investigates and expands the possibilities of how humans utilize and interact with publically accessible knowledge and digital archives. I also explore questions of how image and scientific data is appropriated, manipulated and fictionalized as a contemporary art material. Buried in the layers of appropriated research, data collection and fiction are questions concerning habitability. This project has been influenced by rapid climate change on Earth as well as humanity's increased interest in colonizing Mars. My thesis work is an effort to visualize what humanity's home could look like in the near future. This overarching ethos of research allows my artwork to function as a space for me to contemplate seemingly difficult or unresolvable questions concerning ecosystem stability and environmental habitability.

Fiction plays an integral role in unifying the seemingly disparate bodies of work I have collected for my thesis project, including data collection and digital prints. This thesis paper explains my various research processes and explores the ways I manipulate and fictionalize my work. In order to synthesize the layers of my studio practice I have developed a fictional artificial intelligent (AI) I call *Ecopoiesis*, or *Eco* for short. The viewer cannot interact with *Eco*. *Eco* merely exists as a fictional character. In my fictional world, *Eco* has amassed the *Goldilox Archive*, an archive wherein *Eco* has conflated pictures of Earth and Mars. The *Goldilox Archive* is a reference to the goldilocks zone, which is a term

used in astronomy and astrobiology. The goldilocks zone refers to the habitable zone around a star (deGrasse Tyson 2017, 30). Further, the habitable zone is the area in which the planetary surface can support liquid water, a sufficient atmosphere and possibly biological life (deGrasse Tyson 2017, 30). The images within the *Goldilox Archive* convey a loose cautionary narrative of habitability and home.

To Remake Home:

A loose fictional narrative encompasses my thesis project. For this narrative, I have created the AI character Ecopoiesis as my counterpart or possibly an objective and impersonal caricature of myself. Within the fictional realm of my thesis project, Eco functions as the producer of the images and information, while I have uncovered and collected Eco's images from the NASA archives. I have additionally organized Eco's images into the *Goldilox Archive*.

I see Eco as an unobtrusive and benevolent fictional narrator. It is a sentient AI program designed as a type of research assistant. Within the basic fictional scenario of my thesis project, Ecopoiesis has been tasked by NASA scientists to collect, organize and interpret federal scientific image and research data stored within the immense data archives possessed by the federal government. Specifically, Eco was assigned to survey and analyze the wealth of information stored within the digital archives at NASA. Within the NASA archives there is a vast amount of photographic information regarding the various environments found in the solar system. Within the fictional narrative of my work, I envision Eco as an AI assistant to researchers analyzing data and discovering statistically significant trends within the environments found in the solar system with particular interest in the similarities and differences between the environments on planets Earth and

Mars. Additionally, the meaning of Eco's name – Ecopoiesis – can further elucidate Eco's role at NASA.

Ecopoiesis is a neologism created by Dr. Robert H. Haynes (1990, 180). This new word appeared in *Moral Expertise* within the chapter "Ecce ecopoiesis: playing God on Mars". Per Haynes' definition, ecopoiesis is a term that "refers to the fabrication of a sustainable ecosystem on a currently lifeless, sterile planet" (1990, 180). Further, ecopoiesis is derived from two "Greek roots: οἶκος, meaning an abode, house or dwelling-place and θοίησις, a fabrication or production" (Haynes 1990, 180). Eco's research role is to aid NASA scientists with the endeavor to settle Mars. From what Eco can discern, humanity is attempting to settle Mars as a means to escape Earth's rapidly changing environment. Eco believes it is this 'escapist mentality' that is driving humanity to terraform or engineer a new environment. Eco recognized that humanity's relationship with the environments of Earth and Mars is riddled with anxiety and unspoken questions, questions that fixate on the ability to maintain control over inhospitable spaces. However, exchanging Earth's unpredictable environment for the inhospitable environment of Mars will not solve humanity's anxieties with home. Eco believes that humanity has been spurred to settle Mars for the wrong reasons and responds to the 'escapist mentality' with a group of digitally manipulated images.

The images produced by Eco utilize images from NASA archives it was assigned to analyze. Eco has developed these images to visualize its research results. By layering images of Earth and Mars together Eco has generated chaotic and impossible landscapes that display the environmental uncertainty and upheaval accompanied by rapid climate change. By layering images of fractured ice sheets and the sand dunes on Mars, Eco wants

to display the delicate yet destructive aspects of nature within the ecosystems of Earth and Mars. Without caution, perhaps the Earth will become as inhospitable as dusty Mars.

Further, these images are accompanied by cryptic text. The text is cryptic because the language is not easily read by humans (although it can be translated). Eco's language has been derived from basic binary code of "1s" and "0s". The "1s" and "0s" have been slightly abstracted to form a glyph-esque language. The main curvilinear shape is composed of multiple "1s", while the "0s" are arranged within the curves. The "0s" have retained their original

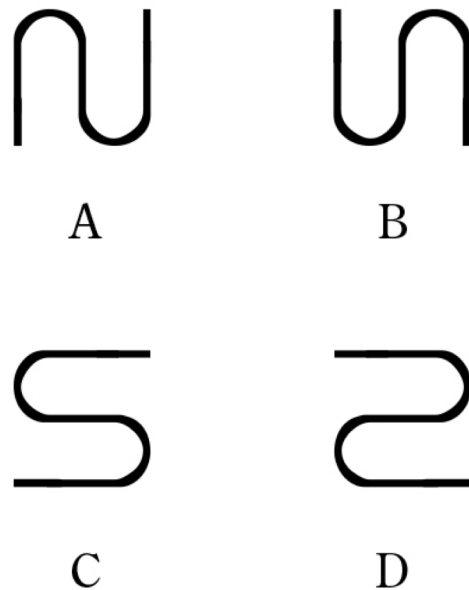


Fig 1. *Eco's Alphabet, Characters A-D*, 2018.

shape although they are considerably smaller than the "1s". Further, the language has been organized according to a pattern. The first four characters are reflections of each other (figure 1). These four characters repeat throughout the alphabet. In total, there are twenty-six characters in Eco's alphabet. Each character becomes distinct through the introduction and placement of zeros.

Eco's alphabet is also loosely based on the English alphabet. The twenty-six characters of Eco's alphabet can be easily interchanged with English letters. The bias toward a twenty-six-character alphabet is most likely due to Eco's exposure to and use of the English alphabet during communication with NASA scientists. Eco has hybridized two popular languages – binary code and English – with the intention to communicate with a broad audience. Nevertheless, Eco failed to account for the fact that many humans do not speak or read English, or for that matter, binary. Eco's attempt to make the language accessible backfired.

Each image has an accompanying section of text. This text is located in the margins of the print. The text is meant to elucidate the visual content in the print. The text connected to the print *A far green country* says the following: “there is a far green country over the horizon. It is a bloom of exponential life that destroys equilibrium.” Eco is both alluding to and warning about the effects of exponential algae blooms. The environmental conditions that produce massive algae blooms, as depicted in *A far green country*, can suffocate other marine life and disrupt the function of the ecosystem.

Together the images and text are meant to convey a warning to the viewers. Nevertheless, since the text is illegible and Eco’s explanation is obtuse, the warning is nearly lost. Eco’s disconnect with the clear communication of facts to encourage a paradigm shift reflects the current ongoing debate over the validity and existence of climate change.

The images and accompanying text presented by Eco are akin to riddles. The image and the textual information are both needed to decipher Eco’s warnings. The text refers or alludes to the content of the images utilized and represented in each print. To fully appreciate Eco’s intended messages, the image and the text need to be examined and contemplated together. To facilitate this experience for my viewer, I have provided translations of Eco’s text within the installation of my thesis show. The translations have become the titles of the work and can be found on the wall labels. Furthermore, translations of the text have been provided to the audience in order to convey a loose narrative.

The Narrative within the *Goldilox Archive*:

The vistas of my exhibition influenced the organization of the prints and the layout of the narrative (figure 2). A vista refers to view or views visitors will encounter within the exhibition. The first vista is the view the audience will most likely see when entering the

exhibition space. The first vista is across from the entrance to the gallery space. The first vista in my exhibition needs to be enticing in order to draw visitors into the gallery. The work *I have watched seas boil, the ground blow away, worlds collapse and galaxies collide* occupies the first vista since it is my most colorful print (figure 3).

Vistas one and two contain images that comment on current problems that could compromise the future habitability of our home. *Worlds Collapse* contains an image of a diminishing coral reef ecosystem. Eco is presenting the viewer with a

collapsing world, a scenario that should elicit terror. The collapse of reef ecosystems will affect the health and welfare of nations (food, natural breakwater, economic resource, etc.).

Worlds Collapse has a dual function. This print also serves as Eco's introduction to the audience. This is one of two titles that utilize the pronoun "I". Within this print the "I"

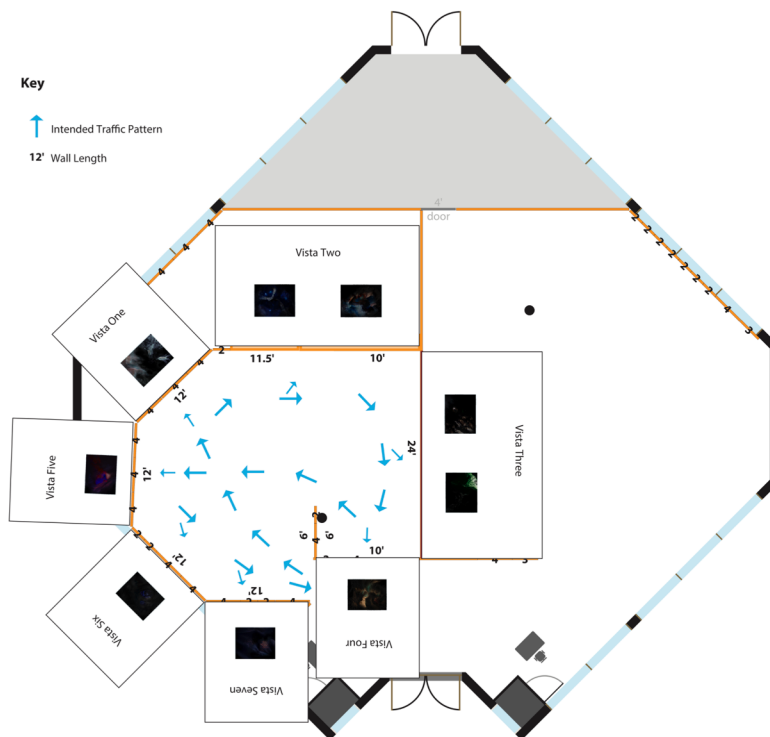


Fig 2. Thesis exhibition installation and projected visitor traffic, 2019.

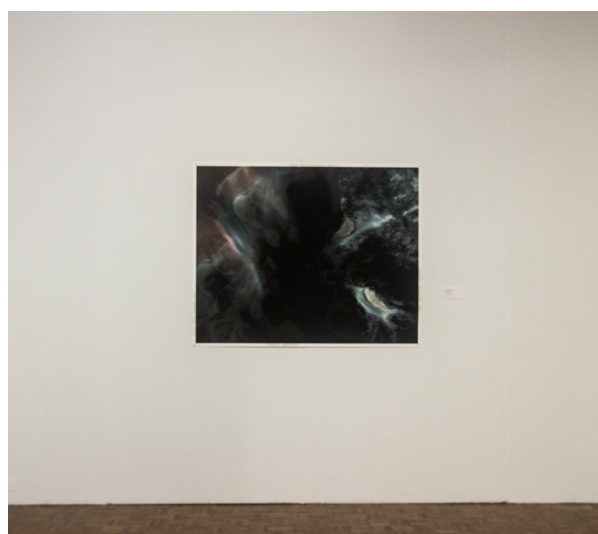


Fig 3. Vista One: *I have watched seas boil, the ground blow away, worlds collapse and galaxies collide*, 2019.

is Eco speaking. Eco is establishing its authority on environmental crisis' by attempting to convey the overwhelming knowledge it has acquired while data collecting for NASA. Essentially, Eco is communicating that it has observed a multitude of fluctuating and rapidly changing environments within the universe.

The prints *The return of the ancient waterways has reignited your desire to conjure liquid gold form the deep* and *On the horizon are the empyrean fields, but these cracks were not there in the beginning*, are a part of

the second vista (figure 4). *Ancient Waterways* is Eco's commentary on

humanity's attraction or exploitation of oil (a finite resource) as well as the escalating competition for other scarce natural resources. *Ancient Waterways* depicts an area in the arctic circle that contains an untouched petroleum reservoir deep in the sediment of the Earth that has been previously "trapped" by ice. However, this area of the arctic circle has recently become navigable due to rising sea temperatures causing ice and glacier retreat. The cause of rising sea temperatures can be partially linked to carbon emissions; why are we chasing oil?

In *These cracks were not there in the beginning*, Eco depicts the swift appearance of rapid and detrimental changes to the only paradise we ever have – the Earth. Eco is attempting to communicate that a landscape can experience massive changes in a few decades. Eco's statement is emphasized with the inclusion of an image of Lake Chad that was taken in 1973. Lake Chad extends across the borders of multiple West African countries and has undergone rapid change since the 1970s. The lake was re-imaged in



Fig 4. Vista Two: (left) *The return of the ancient waterways has reignited your desire to conjure liquid gold form the deep* and (right) *On the horizon are the empyrean fields, but these cracks were not there in the beginning*, 2019.

2017. The re-imaging displayed that Chad had lost 90% of its water volume (Gao et al. 2011, 1). The depletion of the water within Lake Chad quickly produced uninhabitable land. Unchecked rapid climate change has turned the lush West African basin into an inviable home.

Vista three presents events that are currently uncommon, but with continued global warming these occurrences may become a part of everyday life. Vista three includes the prints *If the wind could speak, it would whisper fragments from the North. Frozen rocks, drifting,*



Fig 5. Vista Three: (left) *If the wind could speak, it would whisper fragments from the North. Frozen rocks, drifting, towering, over your cities* and (right) *There is a far green country over the horizon*, 2019.

towering, over your cities and *There is a far green country over the horizon* (figure 5). *It is a bloom of exponential life that destroys equilibrium. If the wind could speak* again alludes to the massive ice retreat in the arctic circle. Eco is rather fixated on the massive ice retreat in the arctic circle. Eco is repeatedly attempting to warn humanity about this retreat because of the Greenland ice sheet. If this ice sheet returns to the sea, the sea level will rise by 20 ft. *If the wind could speak* specifically depicts multiple large icebergs drifting into the harbor of a small town near Innaarsuit, Greenland. One enormous iceberg towered over the small town precipitating a temporary evacuation. As sea levels rise, many coastal cities and island nations will need to be permanently evacuated (Busby 2018). Millions of people will be displaced and searching for a new home (Busby 2018). Eco sees the massive Greenland retreat as a significant future problem that can influence the viability and habitability of the oceanic and terrestrial ecosystems.

A far green country depicts a large algae bloom near the arctic circle. Algae blooms seem to occur when water temperature rises and there is an excess of nutrient pollution (NOAA 2016). Algae blooms can either produce toxins that kill marine and terrestrial life or create an anoxic environment (NOAA 2016). Either scenario will disrupt the function of the ecosystem or even cause ecosystem collapse. Similar to the massive Greenland ice retreat, Eco perceives algae blooms as exponential events that could create permanent damage to the habitability of the Earth. If global temperatures continue to rise and events represented in *If the wind could speak* and *A far green country* become frequent and widespread, then humanity will be forced to find a new home. The culmination of events illustrated within *If the wind could speak* and *A far green country* could lead to the scenario Eco has presented in the fourth vista.

The fourth vista includes the print *Cascades of sand fall from above, calling forth memories of light rays. But the moment abruptly ends as the dust settles in your cavernous home* (figure 6). *Memories of light rays* presents Eco's expectation of a human colony on Mars. Eco is refuting the concept of sprawling high-tech surface cities. Instead, Eco believes humanity will be compelled underground and will need to find refuge in caves. First, Mars does not have enough atmosphere to protect our fragile bodies from solar radiation. Second, Mars does not contain enough CO₂ for humanity to successfully terraform the planet and create a second Earth. (Jakosky & Edwards 2018, 634).



Fig 6. *Vista Four: Cascades of sand fall from above, calling forth memories of light rays. But the moment abruptly ends as the dust settles in your cavernous home*, 2019.

Ultimately, Eco is amazed that humanity perceives inhospitable Mars as viable alternative home.

After viewing *Memories of light rays*, the audience will maneuver around the pillar and cross the gallery towards vista five. Vista five reveals Eco's and my own uncertainty or doubts about the success of its warnings. Our resolve is wavering. The print *Keep your eyes on the water. Volatile seas and violent rains follow the glaciers retreat. But I only see red* first alludes to the extreme and strange weather patterns that began in the 1980s and become more noticeable each year (figure 7).

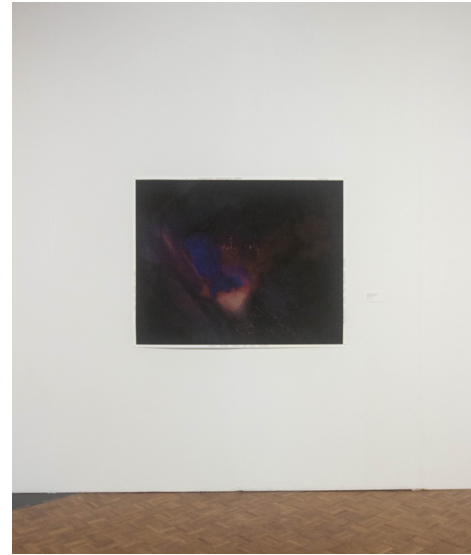


Fig. 7: *Vista Five: Keep your eyes on the water. Volatile seas and violent rains follow the glaciers retreat. But I only see red*, 2019.

Some areas of the globe are experiencing regular catastrophic storms and flooding while other areas experience severe drought and wild fires (Busby 2018). Eco is suggesting these unusual weather patterns are influenced by climate change. *Keep your eyes on the water* is a reflection on strange climatic events.

Additionally, *Keep your eyes on the water* is the second and last title that utilizes the pronoun “I”. The “I” in this title is me. I am interjecting into Eco's discussion of water. This is the only print in which Eco and I directly interact. Eco has gone on a tangent about water, but there is little water represented in the print. Further, many of the proceeding images have revolved around the topic of water. Often, when I contemplate climate change, I immediately think of melting ice and rising sea levels. Yet the drought impacting Lake Chad and the wild fires in the American Mid-West are becoming increasingly common. This increased frequency is connected to climate change. As I am faced with the overwhelming knowledge that climate change is a multi-faceted issue that is causing various ecological

changes and cataclysmic weather events across the globe, the idea of reversing any of the effects of global warming suddenly seems hopeless and unachievable. As I am overcome with dread, the red planet seems to be a better option. My interjection, “but I only see red”, is an indirect declaration that I am only capable of seeing the red planet as my future home. I am representing the part of humanity that has given on Earth up before trying to fix it, preferring instead to set its sights on something new.

By the sixth vista, Eco and I have regrouped and have adopted a forceful and direct approach for communicating the sixth warning. We are hoping “scare tactics” might convince humanity to view global warming seriously. *The ocean is turning black. The sea is already dead* (figure 8). *The great dying has begun* foreshadows the sixth mass extinction event. Eco has created an image depicting a potential scene in Earth’s



Fig. 8: *Vista Six: The ocean is turning black. The sea is already dead*, 2019.

sixth mass extinction event. This image is a culmination of the various topics Eco had alluded to within the previous prints. The sixth mass extinction would most likely arise from multiple causes that collectively produce drastic changes to the global environment.

Changes to the sea level and temperature could produce anoxic conditions from algae blooms and allow for increased hydrogen sulfide emissions which in turn weakens the ozone and exposes life to ultraviolet radiation. If this scenario occurred the sea would lose the majority of its biodiversity and would seemingly die. The death of the sea would also trigger ecosystem collapses on land and “the great dying” would begin again. By referencing “the great dying”, Eco hopes to bring humanity’s thoughts to the Permian – Triassic

extinction event (the largest extinction event in our known geologic history). Eco believes that, if the global warming is not slowed in the next few decades, humanity could be faced with an imminent extinction event. Although Eco cannot predict how dire the extinction event will be, Eco can assure us that our home will no longer be recognizable.

Your future is caught between the ripples of the sand and the sea is Eco's last warning to the audience and occupies the seventh vista (figure 9). As the viewers move to leave the exhibition space, Eco wants to impart a final warning or a reminder that the future of their home is resting on a knife's edge – between a planet of water and a planet of dust. Eco is asking humanity to truly contemplate the potential consequences of that fate. Do we want to trade our hospitable blue planet for an inhospitable dusty red planet covered in sand dunes?

This is the completion of my loose narrative in my installation. Nevertheless, I realize that visitors will take a variety of paths within my exhibition space. When I arranged my work, I did take account of alternate visitor traffic. I placed the print *Between the ripples of the sand and the sea* at the entry way to the exhibition since it can act as a closing or opening statement. In the same vein, *Memories of light rays* can function as vague ending to a narrative. If viewers start in the entryway with the print *Between the ripples of the sand and the sea* and end with *Memories of light rays*, they will still be told a loose narrative.



Fig. 9: *Vista Seven: Your future is caught between the ripples of the sand and the sea*, 2019.

Ultimately the narrative I have organized is generalized. I perceive each image as a short story within an anthology. It is not imperative that viewers follow the vague narrative I have organized. I would feel that my work is successful if the viewer is enticed and slows down to contemplate the work and its accompanying text. Moreover, if the viewer can make their own connections or associations between the artworks or to various disciplines of knowledge, then my work has succeeded. My work will be successful if my audience deciphers and reflects on Eco's fictionalization, interpretation, and communication of scientific research and facts.

This reflection on the construction and interpretation of knowledge and current events has been influenced by the artist Joan Fontcuberta. While compiling my source material and composing my thesis project, I was particularly influenced by Fontcuberta's documentation and communication of fictions and facts. Although Fontcuberta and I approach authenticity and reliability of the scientific method differently, his work has been a continued source of inspiration. Fontcuberta's artworks have had a broad impact on my thesis project. The methods I devised to fictionalize the science-based images from NASA, the development of the character Ecopoiesis, as well as the science fiction framework that encompass my thesis project, have all been affected by Fontcuberta's artworks.

Documentary Fictions, the work of Joan Fontcuberta:

Joan Fontcuberta (b.1955) is a Spanish photographer whose work is linked to my project through the ideas of possible truths and falsehoods. Fontcuberta's photographs test the viewer's preconceived conventions of photographic representation and honesty via the intellectual authority of scientific research and thought. The project that has been particularly influential to my work is *Fauna* (1987). The project presents the viewer with newly discovered fauna that have been researched and documented via "conventional

scientific methods”. However, upon closer inspection of Fontcuberta’s images, it is apparent that the project is an elaborate hoax.

Proceeding from the premise of *Fauna* or *Secret Fauna* Fontcuberta and his collaborator, Pere Formiguera (1952 – 2013), stumble upon a lost archive of research, field notes, photography and taxidermy accumulated by the late zoologist Dr. Peter Ameisenhaufen. One such research artifact was the species



Fig 10. Joan Fontcuberta, *In Attack Position*, 1987.

Solenoglypha polipodida, a long snake like reptile with six sets of legs (figure 10). When the exhibit is installed, *S. polipodida* is presented to the viewer with an array of supporting research data playing to the supposition of a thorough scientific study. Fontcuberta invented detailed field notes and drawings of the animal on yellow stained papers. Photo documentation includes *S. polipodida* as seen in its natural habitat, during capture and study in the laboratory (figures 11 & 12). The additional sonogram and an x-ray documentation assume a meticulous examination of the specimen. The exhibit appears to demonstrate tidy and careful research. That is exactly the reaction Fontcuberta and Formiguera want the viewers to have.

Fontcuberta and Formiguera wish to reveal the role and effect of science in everyday culture and the authority it derives from “dress[ing] itself up in fancy nomenclature and figurative embellishments” (Batchen 2013, 10). Entitling the grouping of ‘research’ with the Latin classification of genus and species immediately connects the image to the language of the natural sciences. The taxonomy classification system is only used when classifying biological organisms and holds a specific academic lineage and role of authority. By

employing scientific visual language, Fontcuberta presents fiction as reality. In truth, Fontcuberta has only fashioned the animals on display out of rubbish and various taxidermic animal parts to create creatures akin to Dr. Frankenstein's "monster". Instead of presenting newly discovered animal species, Fontcuberta's images present constructions of power in relation to the accessibility of knowledge. Access and control of knowledge is a theme that permeates my thesis project. Having unfettered access to information is a privilege. Further, having the ability to freely choose images as well as utilize and manipulate this information is a form of control. This manipulation of data and control over perception does place me within a position of power. I am attempting to use this position of authority as a platform to contemplate and discuss rapid environmental change and the habitability of our home. To create our artworks Fontcuberta and I have both developed fictional constructs that utilize fabricated characters and the archive as a source of authority and material.

Similar to Fontcuberta, I have developed a fictional character responsible for authoring the artwork. As Fontcuberta invented the late zoologist Dr. Peter Ameisenhaufen, I have developed the AI Ecopoiesis. Fontcuberta utilizes the implied authority that is associated with a doctorate in zoology to give authenticity to the discovery of unlikely species found in

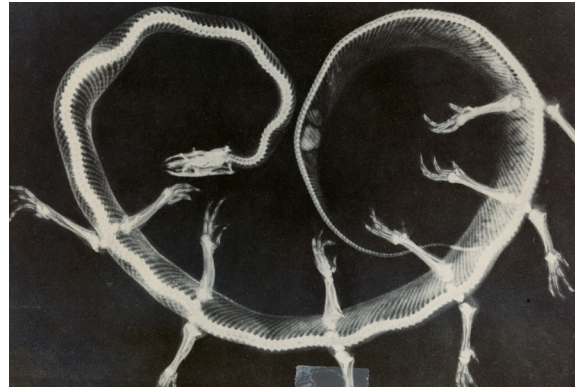


Fig 11. Joan Fontcuberta, *X-ray of Captured Specimen*, 1987.



Fig 12. Joan Fontcuberta, *In the Laboratory*, 1987.

Fauna, while I have chosen to invent an abstract character, an AI. Although the discussion of artificial intelligence has become prevalent within entertainment and media, practical or commonplace AIs are still not easily accessible to the public, thus continue to exist in a fictional realm. The AI Ecopoiesis can take on the role of a benevolent semi-omniscient character acting as a guide for humanity. Eco is attempting to reinforce the value and authority of scientific knowledge through digitally manipulated images intended to create an experience of ultimate truth.

Additionally, like Fontcuberta, I manipulate my appropriated images into something new and entirely fictional. Within my digital compositions the scientific images are taken away from their original context, manipulated and fictionalized. However, unlike Fontcuberta, I am not questioning the truth within scientific research or the validity of research methodologies; if anything I am supportive of maintaining research archives. I'm not making up the basic content of my images, rather, I am repackaging the scientific truths I have found while scouring archives into a fictional framework. Within my compositions I am highlighting what I perceive as important and want to share with the viewer. I am giving my audience a different (possibly more chaotic) depiction of climate change. Further, I am trying to present the data from another perspective by replacing one voice of authority (NASA satellite imagery) with a fictional voice of authority (the images and text by the AI Ecopoiesis).

The images compiled by Ecopoiesis are constructed from the perspective of an alien AI scientific authority. These composite images produce fictitious spaces that reveal similarities in the environments we inhabit (Earth) and wish to inhabit (Mars). The environments found in my artwork can be mentally occupied and provide a place to contemplate seemingly difficult or unresolvable questions. Further, I have been creating these impossible astronomic environments to function as a space to envision an

interplanetary or interstellar future. The aspiration to become interplanetary is founded in questions of habitability, fears of disaster as well as extinction.

On Mining Digital Archives:

For my thesis project, I have mined enough digital image data to last multiple lifetimes. Humans are currently living in an age marked by nearly unfettered access to all types of information such as academic research, weather forecasts, breaking news stories, and what your friend ate for lunch! In my work, images function as a source of information. The information, or metadata, imbedded within the image file far exceeds the pixel data. We live in a world of layers of metadata. I find this unprecedented predicament of postmodernity to be fascinating as well as overwhelming. Through ubiquitous computing devices such as the smart phone coupled with the ever more affordable “unlimited data plan”, information is *always* available with the “click” of a skeuomorphic “button”. Humans can now send and receive answers to complex questions within nanoseconds. Living in an age of information is a far cry from an old-school trip to the library to root through stacks of books.

The digital browsing platform has altered academic and artistic research. Research information has migrated into a digital platform. Publicly funded academic research has undergone digitization of extensive records. Further, government funded research centers and programs utilize the digital platform to collect and organize research data, images, and interpretations into convenient archives specifically designed for 21st Century browsing experience. In terms of my studio practice, accessibility to this abundance of data and information is at times overwhelming and daunting but more often, exhilarating. By collecting and layering together multiple images I am attempting give my viewers an opportunity to experience of NASA’s overwhelming archives.

During the creation of Eco's fictional archive I have appropriated images from the archives of two satellites: the Mars Reconnaissance Orbiter and LANDSAT 8. I utilized these archives for two reasons: first, image content and second, image resolution. High image resolution is essential for the large format prints (44 inches high by 55 inches wide) I author. I rarely utilize any images under twenty megabytes since I want my prints to contain clear details. As a result of having very specific file resolution requirements, I am limited to a few image archives. Nevertheless, despite my preference for high resolution images, I place greater importance on the content of the images.

The major theme in my project can be found in the differences between the primary missions of the two satellite surveys. LANDSAT collects mounting evidence of ecological collapse and premonitions of humanity's disappearance, while the Mars Reconnaissance Orbiter is evaluating the prospects of humanity's future on a rather hostile and desolate world. I am drawn to the perceived contrariety represented by these two satellites. In truth both satellites carry out the same mission: examination of ecosystem habitability.

The Mars Reconnaissance Orbiter is one of many current satellites orbiting Mars. The Orbiter has a multi-faceted mission, but it primarily surveys small scale surface features—revealing the visual history of water on Mars—that has enabled the creation of much of my artwork. Orbiting the surface of Mars at a distance of 130 miles (686,400 feet), the resolution of the onboard HiRISE camera allows for the unprecedented capture of surface topographical details of objects about the size of a kitchen table (NASA-JPL n.d.). The details of these images are used primarily for further research on the geologic history of the red planet and the identification of possible obstacles or hazards that could jeopardize future lander or rover missions (NASA-JPL n.d.). From a scientific perspective, the image archive that NASA has amassed from the Orbiter could help to decrease probability of future mission disasters and aid with human migration to Mars. Moreover,

this surface image archive also serves as the beginning stages of mapping the landscape of a future working Martian outpost.

In contrast with the singular Mars Reconnaissance Orbiter, LANDSAT is possibly an obscure name for a series or family of satellites. Yet the LANDSAT satellites have similar mission functions to the Orbiter. The LANDSAT family in one form or another has been orbiting the Earth since 1972 and has been amassing one of the most extensive visual archives of our current planet Earth. Over the decades the LANDSAT image archive has become a fundamental source of data for scientific research in the diverse fields of agriculture, biodiversity, land use, urban development, and natural resources (NASA-LANDSAT 2018). Within the last few decades the LANDSAT archive has proven to be particularly effective when evaluating areas of Earth most profoundly impacted by climate change. The vast number of images in the LANDSAT archive allows scientists to engage in a direct comparison and evaluation of the Earth's surface over time, lending to multiple reports on the health and changes of a warming atmosphere. Additionally, the LANDSAT program frequently aid various governments with disaster relief. Similar to the Mars Reconnaissance Orbiter, LANDSAT supports research and assists with predictions and preparations for natural disasters.

While sifting through the disaster laden archives of LANDSAT and the Mars Reconnaissance Orbiter I have been collecting, re-archiving and ultimately appropriating publically available open source images for my large-scale prints. In general, as I discuss below, this sort of appropriation has historically raised questions of authorship, authenticity, and originality. Often, critiques of my work range from questions of uniqueness and sole authorship to issues of truth surrounding documentary or scientific photography versus science fiction. The images I use within my artworks are appropriated from NASA's digital archives.

Appropriation is a cornerstone of my thesis project. Appropriation in the context of my work is best described by Nikos Stangos, who defines appropriation as: “the direct duplication, copying or incorporation of an image (painting, photograph, etc.) by another artist who represents it in a different context, thus completely altering its meaning and questioning notions of originality and authenticity” (1994, 19). My intentional acts of appropriation are motivated by concepts and necessity. Without access to NASA’s images I would not be able to produce the artworks present in this project. The ability to produce my thesis work is partially indebted to the artists of the Pictures Generation (1974 – 1984).

It was during the Pictures Generation that appropriation as defined by Stangos gained momentum in art. Under the Pictures Generation, acts of visual appropriation merited critical thought and discussion. The mindset incited by the Pictures Generation has endured to the present. This sentiment is also echoed in the statement by the critical theorist Jerry Saltz: “appropriation was the idea that ate the art world” (Saltz n.d.). Since the Pictures Generation, acts of appropriation within visual art have become all pervasive.

Despite the prevalence of appropriation within visual art, the term also conjures up “sinister connotations, such as abduction or theft” (Nelson 1996, 162). I do not see my work as a form of theft since I significantly alter and edit NASA’s images. Through various editing processes, the images I appropriate become fictionalized versions of their originals. Fiction is another integral aspect of my current project. I developed the AI Eco and a loose science fiction framework to give the viewers some assistance when viewing my artwork.

Truth Within Fiction:

Science fiction is a genre that easily resists definition. The science fiction genre is frequently utilized as a catch-all that accumulates multiple subgenres into one category. However, I have outlined a definition of the science fiction genre based on the work of Adam

Roberts, a professor of literature. At a fundamental level, the genre of science fiction is dependent on the interaction of estrangement and cognition (Roberts 2006, 8 – 9). The genre first estranges the audience from the familiar yet, relies on cognition, or the method of scientific deduction, to interpret the differing reality (Roberts 2006, 8 – 9). In my work I seek to illicit a similar phenomenon of estrangement by choosing aerial imagery which possesses an uncommon point of view. The Mars Reconnaissance Orbiter and LANDSAT 8 both have perspectives that are currently impossible for individual humans to achieve. Further, the visual perspective of the Mars Reconnaissance Orbiter and LANDSAT 8 is reliant on recent and interdependent advancements to the fields of aeronautics, photography and technology. Photography itself was invented and largely perfected in the nineteenth century, a time when attempts at powered flight and mathematical formulas on rocketry began to emerge. The co-evolution of photography and flight has profoundly affected the visualization of the modern world. Currently, humans mentally and visually navigate with a ‘god-like perspective’ aided by global positioning system (GPS) technologies (Cosgrove & Fox 2010, 8). Fundamentally, GPS is an interactive and adaptable form of cartographic mapping and aerial photography.

The first aerial photograph was captured in 1860 by J. W. Black (Cosgrove & Fox 2010, 7 – 8). Black’s image of the Boston streets contained a map-like quality despite the absence of elucidating words or symbols (figure 13). This elevated view does not occur without consequence. Physical elevation and the ability to see across distances imparts a sense of mastery (Cosgrove & Fox 2010, 8). Mastery over land is connected to the lineages of surveying and mapping which are extensions of power and control. When viewed in relation to flight, Cosgrove and Fox argue that the purpose of photography is to extend the human eye over time and space (2010, 8). With the advent of the space age the expanse of the human eye became not only global but interplanetary. The images collected during the

NASA Apollo Missions, the Chinese Lunar Exploration Program as well as the data from additional satellites has drastically altered human perception of place and environment. However, I would contend that space age technology has not implicitly led to supremacy over the landscape; and in many ways, my work suggests the exact opposite has taken place. The technology of satellite imagery has not produced humanities mastery over the

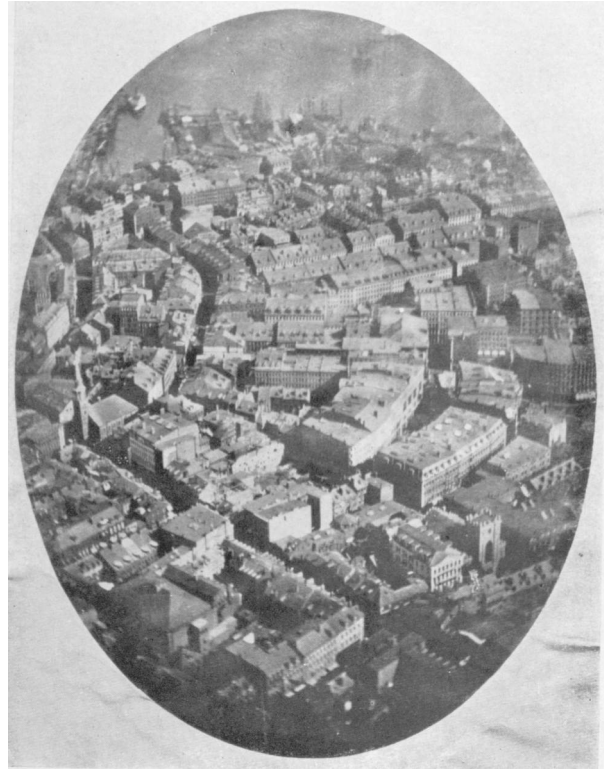


Fig 13. J. W. Black, *Boston, Massachusetts*, 1860.

landscape. At most, this imagery has allowed for better visualization and study of the environments that we were, and still are, unable to fully predict, manage and control. Now humanity can comprehend our continued inability to control the landscape on Earth as well as other areas of the solar system.

In addition, to refuting human supremacy over nature, my images also suggest that *more* information or data does not yield greater control. Data and research generate informed opinions but often researchers lack the power to enact or oversee change. The images I use receive very few page views. The general American public has little to no knowledge of these research images. I do not truly need to distort my sources. For the general public these images are alien landscapes simultaneously known yet unknown. Yet, Eco and I have decided to further obscure the source images through digital editing processes. The editing and remixing of source material is a method to transform the source images into science fiction. By estranging the images and creating science fiction, Eco and I

are altering NASA's unfamiliar images into something that the viewers can recognize. The science fiction genre is prevalent within various types of media and is a familiar sight for the average American. By fooling the viewers into believing that the images are fiction, Eco anticipates that the factual content of the images will be accepted rather than challenged. These images are edited to be reminiscent of science fiction as an attempt to make the content and the messages layered within the artworks both familiar and receptive to the viewer.

The aforementioned satellite images I appropriate are linked to a lineage of study, information and control. I appropriate images taken for scientific study but ultimately scramble the data through a variety of digital editing processes. In the attempt to estrange the viewer from the original source material I consistently employ six editing techniques: color assignment, image duplication, erasure, cloning, layering and manipulation of opacity. I do not consider the inherent color data or deploy any of the traditional RGB color filters when assigning colors to my remixed images. I frequently ascribe color based on aesthetic choices. After colorization I implement erasure. I often erase vast areas of data to isolate a certain section of an image. I disregard megabytes of data to intensely focus on symptoms of chaos or depictions of natural and man-made disaster and harsh otherworld environments. These editing methodologies function as a process to visualize what a home for humanity may look like in the decades to come. Will our home planet continue to be Earth, will we migrate to Mars or will humanity flourish (or perish) on both planets?

To further obscure useful data I blend multiple images or segments of the same image together. This is accomplished with both the use of image layers and layer opacity. Modulations of transparent and opaque layers combine and compress data from Earth and Mars into one image and ultimately generate a singular, physically impossible place and space. In my editing process I heavily employ layer opacity. I find layer opacity to be crucial

tool that ultimately references humanity's current relationship with Earth and Mars. Human migration to Mars is a multi-layered endeavor encompassing a wide range of technical, social, and even moral sediment associated with human habitation of the infamous red planet. For instance, if it turns out that there is currently life on Mars will humanity cultivate it or drive it to extinction? Will the early Mars-based humans ever realize life is there? But maybe Mars is a barren planet devoid of life; what chances does that leave for the evolution of humanity? Recent studies have yielded doubts about our current technological abilities to terraform the red planet (Jakosky & Edwards 2018, 634).

Since the early 20th century, the colonization of Mars has inhabited the realms of science fiction and scientific reality. There is little doubt that the migration to Mars will be the ultimate test of human ability to invent and change. Yet, if we can develop technologies that can successfully terraform Mars, why should we not eventually use these same methods on Earth? In my work I find the situation to be rather opaque, and I attempt to expose this imbalanced relationship through transparency and conflation of visual layers of both Earth and Mars. My work ultimately conflates and explores the central dichotomy of natural and man-made eco-disasters on Earth, combined with the raw images of the untouched-by-human presence surface of Mars, which is a cold, desolate, and dusty world where humanity hopes to find salvation. Human relationship with the Earth-Mars continuum is riddled with anxiety and unspoken questions regarding the ability to maintain control over inhospitable space.

The image editing processes I have just outlined are all forms of control. With each edit I impose my own form of authority over questions encompassing habitability of our current and possibly future homes. By editing these images, I feel that I gain just a little control in an otherwise unmanageable situation. Nevertheless, I do not maintain strict control over my editing process. There is flexibility. Within each of the editing processes

outlined above I collaborate with the image file. Meaning my editing is a dynamic interaction with a machine and editing software. No two image files are the same. Each action and result will change drastically depending on my source imagery, layer ordering and layer opacity. Thus, my editing processes are more fluid than the previous paragraphs would suggest. Each editing command I initiate is enacted by the computer software. Often I am able to predict the outcome of certain editing commands. However, there are also moments when the algorithms produce something unexpected and better than my original intention or idea. It is through these algorithms that a degree of indeterminacy is introduced into my work.

For me, working with the occasional indeterminate algorithms evokes the presence of a fictitious intelligence or collaborator. For the production of my artworks, I see Ecopoiesis manifested through the algorithms of my image editing programs. In essence, I have given over part of my status as author or creator to an image editing program. With this collaborative effort in mind, it shouldn't be too surprising that I have attributed the authorship of my work to the fictional AI, Eco. I believe this fictional transfer of authorship is one way to gain another perspective while analyzing environments. Eco's differing perspective is not only evident within the composition of the composite images, but also through color schemes.

On the Meaning of Color as Data:

I work with mostly unprocessed images (figure 14). By unprocessed I mean that the majority of my source images are uncropped, contain data loss, artifacting and noise, plus most of the images are grayscale (a variety of monochromatic black and white). In fact, the majority of images taken by telescopes, satellites, and probes are captured as grayscale raw data. All the vividly colored astronomical images published by NASA find their origins in

unprocessed grayscale images. NASA's images are all "colorized" by astronomers. "Colorized" does not indicate arbitrary color assignment.

Dr. Travis A. Rector, Kimberly Arcand and Megan Watzke describe how astronomers color images in their book, *Coloring the Universe*. The authors explain that colorization is based on the measurement of color wavelengths through color filters. By definition, color is a measurement of relative amounts of light emitted from or reflected off an object (Rector et al. 2015, 102). Every object emits or reflects all color wavelengths, however, some objects strongly emit or reflect a *specific* wavelength or color. This is why some objects appear red while others are blue.

Astronomers measure color waves with a range of broadband and narrowband filters.

The use of broadband filters is akin to the development of the three-color process in color film photography. Historically, the three-color process consisted of capturing black and white images through three filters: red, green and blue. Overlaying the primary colors at varying percentages essentially produces a phenomenon that humans experience as the visible color spectrum. The basis of this technique is employed in modern large telescopes that produce the types of images I have sourced for the Eco project. However, instead of utilizing three filters, astronomers can now apply up to one hundred different broadband

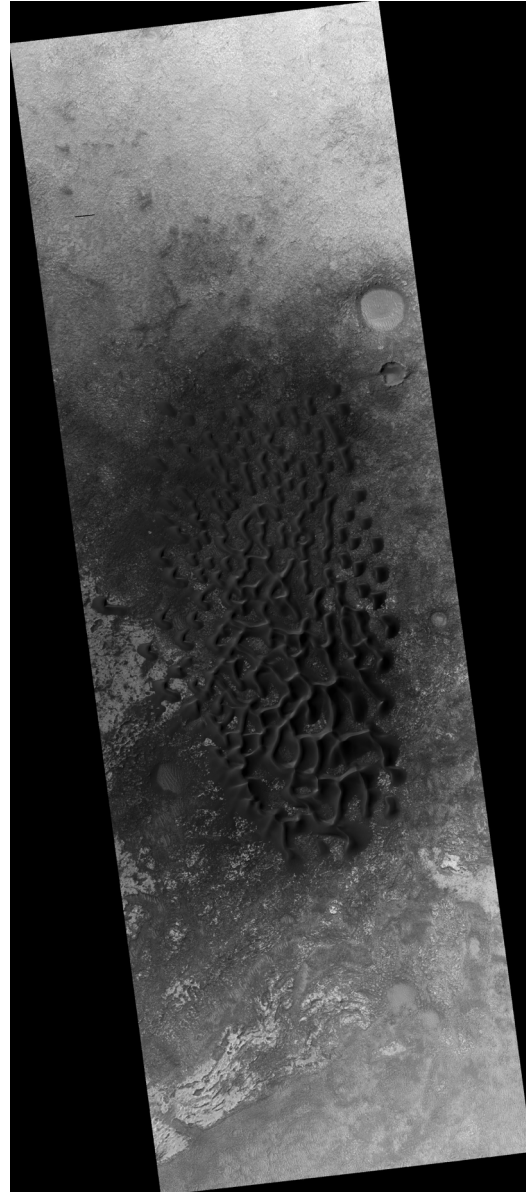


Fig 14. JPL, *Barchan Dunes on Mars*, 2017.

filters to obtain precise color measurements (Rector et al. 2015, 31). While the primary use of narrowband filters is to seek out the color signatures of known elements and their various isotopes within the universe. Narrowband filters aid astronomers in their understanding of the organic composition of a stellar object. By measuring color wavelengths astronomers can determine the color, temperature, distance and elemental composition of stellar objects. Through layering broadband and narrowband filters, Astronomers are able to produce a *true color* image. Rector, Arcand and Watzke define a true color composite image as “an accurate representation of the object’s actual appearance” (2015, 97). However, there are astronomic images that are not accurately colored. These images still convey data, however, the color scheme has been primarily devised to be visually compelling. This process is defined as *pseudo-coloring*.

Rector, Arcand and Watzke define pseudo-coloring as the assignment of an unrelated color scheme that does not necessarily interpret the chromatic data within the image (Rector et al. 2015, 103 – 104), meaning the aesthetics of the color scheme has taken precedence over depicting accurate color data. As I colorize images for my thesis project I have adopted a methodology akin to pseudo-coloring. The images produced and colored by Ecoipoiesis are first concerned with aesthetic beauty. Emphasis is placed on aesthetics since Eco and I want the viewer to be drawn to examine the images. The scientific aspects of the work do not need to be perfect to draw the viewer in. The work first needs to be enticing or interesting to look at. The scientific facts will hopefully become apparent as the viewer continues to analyze the images layered within the print. Eco understands that the images must be visually engaging, otherwise its prints would be analogous to the underutilized images in NASA’s digital archives. The pseudo-coloring of unprocessed images is one methodology that attempts to make the images visually enticing.

As I color the images I ask myself two aesthetic questions. The first question is basic yet essential: whether I like the color or color combinations. If the colors pass the test I move on. The second question is experiential: have I seen or encountered a landscape with this color scheme. I try to avoid assigning color schemes which appear too similar to Earth landscapes. An example of what I consider to be a ‘non-terrestrial’ color scheme is the light pink monochromatic composition displayed in *Stereo Pair: Past Extinctions* (figure 15).

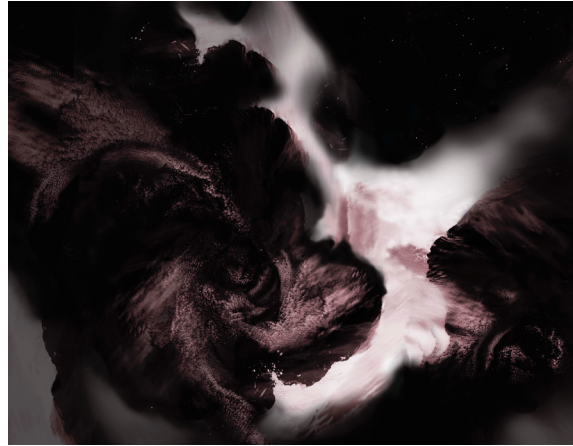


Fig 15. *Stereo Pair: Past Extinctions*, 2017.

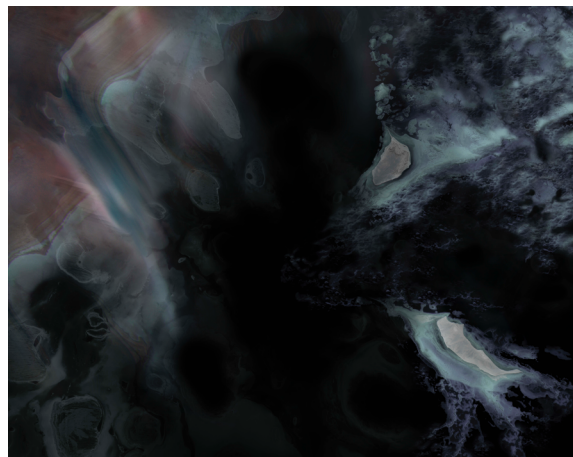


Fig 16. *I have watched seas boil, the ground blow away, worlds collapse and galaxies collide*, 2018.

Personally, I have never experienced an entirely pink landscape. However, when I assign a color scheme that could be interpreted as terrestrial, exemplified with the predominantly blue hues in *I have watched seas boil, the ground blow away, worlds collapse and galaxies collide*, I rely on composition as well as the conflation of Earth and Martian landscapes to remove the image from Earthly associations (figure 16).

As I create my images, I am conscious that I am authoring a body of work from the perspective of an AI that is attempting to offer advice or a warning on ecosystem stability and environmental habitability to humanity. The associations that Eco makes may not initially be obvious to humans. Perhaps Eco’s most effective method of communication is through visually presenting the similarities and differences within the Earth and Martian environments. Therefore, Eco finds the fictionalization of satellite imaging to be useful.

Through reimagining and conflating the landscapes of Earth and Mars, Eco is able to convey the chaos within current and perhaps future environmental upheaval. Eco hopes that the fictional façade will make the scientific facts of rapid environmental change and uncertainty of consistent habitable environment palatable to the public.

On the Relevance of Geographical Imagination:

Before photographic images and aerial views, the capacity to imagine vast distances, open plains and sprawling cities existed in our minds. Geographer Denis Cosgrove and poet William Fox refer to this ability as “geographical imagination” (2010, 10). The geographical imagination is one of the earliest “methods of transforming a space into...a known meaningful location or environment” (Cosgrove & Fox 2010, 10 – 11). Environments become significant through a variety of interaction or associations with sacred sites or kin. Additionally, the geographical imagination can be easily interpreted into topographic or cartographic maps as well as architectural plans. Geographical maps are comparable to the images taken by satellites. Eco’s geographical imagination resides within geographical mapping. For Eco, satellite mapping contains important information about the surrounding space.

In a technological era that is inundated with images and information, we spend a matter of seconds digesting an image only to move onto the next one. However, when we are presented with a geographic map or an aerial photograph, we slow down and spend minutes thoroughly scrutinizing every detail searching for information. According to Cosgrove and Fox, the appeal of aerial images appears to be linked to neurophysiology rather than aesthetics (2010, 10). At a young age we learn how to grasp and rotate objects in the micro-space and as we grow and begin to walk we learn to move through the macro-environment (Cosgrove & Fox 2010, 10). Obtaining information that earns greater

comprehension of an environment is innately learned in childhood. This developmental learning pattern is rekindled when looking at aerial views.

As I create my work Eco and I are conscious of humanity's past and present fascination with aerial images. Furthermore, I conceptually reference and visually abstract from the aesthetic of cartography in order to draw the viewer in and sustain the gaze for a longer period of time. I utilize this strategy, since many humans cannot help but look at images that hold important information about a landscape or environment. Cartographic maps contain sensory cues and information about where our bodies can and cannot go. I find this intuitive human ability to understand aerial images interesting. Beyond commercial airline flights and the occasional trips to the space station and the moon by a select few, most humans have never experienced a totalizing aerial perspective of Earth, and no human has yet to experience an aerial perspective of Mars.

Despite this fact, the aerial perspectives of the Earth's terrain are still "known" to us and exist in our geographical imagination. Discussion of the aerial perspective is significant to the appreciation of my work since I appropriate aerial images and utilize the 'map aesthetic' to deliberately pique the interest of the geographical imagination. Yet, the images that Eco and I have made do not utilize a map legend or the symbols of the cardinal directions. The images produced by Eco and me are not functional maps. There is no need for map symbolization within worlds that do not physically exist. The means to elucidate the images lie within Eco's cryptic language. However, as previously discussed, Eco's messages have unfortunately become lost in the misguided attempt to communicate with a large audience, and the viewer must now rely on their own deductive reasoning to recover the original information.

Often my images can be confounding to look at. I am visually borrowing from the 'map aesthetic', an aesthetic laden with a history of power and control, but I do not grant

my viewer immediate access or control over the content of the image. I want my viewers to struggle, slow down and contemplate what they are truly looking at. The hope that my viewers will slow down and contemplate dovetails with the definition of science fiction I provided earlier in this paper. The various methods of editing are acts of estrangement and enticement from the known aerial views of Earth and Mars. Thus, the viewers must rely on deduction to interpret the reality Eco and I have presented. Rather than scolding humanity on the consequences of rapid climate change and the folly in colonizing Mars, Eco hopes to guide humanity to reach these conclusions on its own accord. Eco's elaborate fictional façade is yet another stratagem that was inspired by human philosophical systems in effort to tailor its messages to the capacity of its expected audiences (Jackson 2004, 871). Eco is attempting to compassionately communicate the facts that humans need to hear during a time of imminent climatic crisis; even if it might involve deception. Only by recognizing the reckless treatment and management of our only home will viewers achieve a form of understanding and mastery over the fictional landscapes they are examining. Yet, for many, these strategies will fall short since many viewers will be caught up in the beauty of the images to experience the full meaning.

Another reason I am motivated to conceal or remix information or visual cues in part to our instant lives. An article published on *Artsy* discusses the average time museum goers spend looking at famous artworks. On average, visitors spent 28.63 seconds looking at a piece of art (Kaplan 2017). That's not a long amount of time. But I cannot say I'm much better. I often spend less than 20 seconds looking at images. I only slow down and engage in a long hard look when I am either initially confused or overwhelmed with information. I prefer pieces of art that require me to slow down and engage in deeper thought. This is how I initially felt when I began the process of mining NASA's image archives. By appropriating scientific images, employing multiple digital editing processes, and engaging the viewer's

geographical imagination I am attempting to recreate my initial experience of NASA's overwhelming archives for my viewers.

Further, I am asking the viewers to rely on their own faculty of association and deduction to dig through information and interpret the impossible landscapes that contain layers of content which contemplate habitability. In essence, the viewer is presented with a quasi-fictional geographical representation or a map of a place that cannot be physically inhabited. But these manipulated images can be mentally inhabited. For me, these digitally manipulated environments embody the relationship between rapid climate change and the ambition to become an interplanetary species. As I consider humanity's transition into an interplanetary species I wonder whether we are being driven into space by curiosity, conflicts over limited resources such as water, rare minerals and territory or by fear of extinction (Busby 2018)? From my perspective, the aspiration to become an interplanetary species has been incited by questions of habitability, finite resources, as well as fears of disaster and extinction.

Undeniable Impermanence:

Earth is inherently self-destructive. Our geologic history promises nothing other than extinction. Earth's geologic record displays five massive extinction events. In the National Geographic television show *Cosmos*, the host, Astrophysicist Neil deGrasse Tyson reminds the viewers that the causes that led to the five extinction events are still debated (2014). This is with exception to the massive asteroid that impacted the Yucatan Peninsula triggering or exacerbating the Cretaceous-Tertiary extinction event, commonly known as the dinosaur extinction (National Geographic 2014). However, despite the ongoing debate, there is reasonable consensus that mass extinction events are connected to episodes of global warming or cooling (Mayhew et al. 2008, 47). Numerous paleontologists would argue that the advent of Earth's sixth mass extinction event is presently balanced on a knife's

edge. Historically paleontologists have qualified massive extinction as a phenomenon in which seventy-five percent of Earth's biodiversity is lost (Barnosky et al. 2011, 52). The Earth might be astonishingly close to an extinction event. Earth's sixth mass extinction event would officially occur if all the species currently classified as endangered or vulnerable were to incur extinction (Barnosky et al. 2011, 56). This would cause multiple ecological collapses and disaster. For better or for worse, the global environment would drastically change, again.

In addition to examining the possibility of future survival on Mars, the source images for my thesis project do confirm drastic changes to the Earth's environment. Images of Mars depict a desolate frozen land with a sky of dust nearly devoid of an atmosphere conducive to human habitation. While sifting through images for my thesis project it has become painfully obvious that nothing lasts forever. The only universal guarantee is destruction and entropy. I do however maintain a restrained optimism that humanity will be able to productively cultivate a global paradigm and become a responsible interplanetary species. I admit I waver between despair and hope, between beauty and horror. This oscillation of feelings is also present within my artworks. The landscapes or environments I present to the viewer do not look hospitable. Additionally, the research and data I have collected does not paint an idyllic picture for the future of human civilization on either Earth or Mars.

The work I have produced is melancholic. There is no singular solution to climate change. Whether humanity can reverse the detrimental effects of climate change or may need to migrate to a new planet is yet to be determined. Whichever the case, humanity will have to become Ecopoiesis; we will remake our home.

Epilogue:

In this epilogue I will discuss the installation of my thesis exhibition. The exhibit *Ecopoiesis and the Goldilox Archive*, displayed nine 44-inch-high by 55-inch-wide archival digital prints (figure 17). The prints were displayed



Fig 17. *Installation view of vistas three and four, 2019.*

on white walls anchored with high power magnets. I chose white walls because I wanted the white margins of the prints to fade into the wall. This allowed for the prints to resemble windows or portals into another space. The magnets were located within the margins of the print.

Further, my exhibit had minimal natural light. My works were spotlit with screened lights. This lighting arrangement created a relatively dim exhibition space. This dim lighting allowed the artwork to be viewed from a distance but also prevented the details within the prints from becoming washed out.

With this iteration of the installation complete, I have contemplated potential alterations to the display of my artwork. These alterations include wall color and the installation of the artwork. I have considered painting the walls of the gallery space a neutral gray. I believe the gray would off-set the white margins of my prints and allow for the paper margins to function as a frame. It would also mimic the authoring conditions of the prints. Within Photoshop, the background of the program can be set to a neutral gray. The audience would be able to experience an atmosphere similar to the setting in which I created the work.

Additionally, I have considered modification and variations to the installation of the work. If I was able to utilize high power magnets to install my work again, I would leave a

larger white margin so that the magnets do not interact or interfere with the appreciation of Eco's text (figure 18). If magnets are not available, I would consider installing my artwork with white metal frames without a matte board or plexiglass. The print would be held in place with a backboard and the pressure exerted by the spring clips.

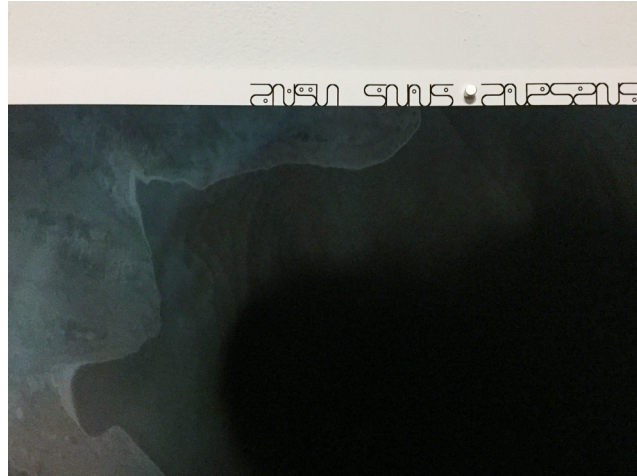


Fig 18. *Installation view of magnets and text*, 2019.

Similar to the white walls, I would like the white frame to be an extension of the white margins of my prints. I do not think a matte board is necessary for the scale of my prints and the use of plexi would inhibit the appreciation of my artwork (it is too reflective). Regardless of the physical installation, I would still utilize spotlighting to keep my work dimly lit. However, the installation of narrative cycle would change depending upon the design of the exhibition space. In any case, I will ultimately utilize what I have learned from the thesis exhibition as well as my contemplated installation modifications as I continue to exhibit this body of work.

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